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Virtual Reference and In-depth Assistance Using Shared Workspaces

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VIRTUAL REFERENCE AND

In-Depth Assistance Using Shared Workspaces

Searching can be a complex, iterative, and sometimes intimidating process. Recognizing this, librarians for years have created multiple paths to train end users in the intricacies of research using online databases. These are intended for use by anyone approaching a research project using library resources. Preparing people ahead of time is only part of the solution, however. It's during the search, at the point of pain, when someone reaches a roadblock, that immediate and customized help from an expert is needed.

Obtaining remote assistance while in the midst of the research can be frustrating for both the librarian and the researcher when the engagement is limited by text-based communication methods. Shared workspace collaboration tools that enhance interaction options are better.

This article describes the use of a shared workspace for manipulating multiple media materials and how sharing real-time workstation screens to understand and demonstrate more sophisticated search methods facilitates the mastery of more advanced tools and techniques.

DRAWBACKS OF TEXT-BASED PROTOCOLS

Many online library assistance transactions are currently handled by text-based communication protocols. The vast majority of users desire quick answers, whether by chat, email, text message, or phone. In cases where more complex answers are required, the library tends to provide URLs that point to more complete but static web descriptions and/or media demonstrations of common procedures. These serve users well for general presearch instruction, but they cannot be designed to solve individualized search problems.

This simple text-based response methodology can be a preferred behavior for speed, convenience, and data plan cost considerations. It might also be a required restriction for those using older phones and, in some cases, public workstations without full viewing options. This text-based limitation significantly reduces the advanced assistance and teaching possibilities within remote interactions. Text-based solutions that incorporate visual assistance tend to be precreated page dumps (using programs such as TechSmith Corp.'s Snagit; www.techsmith.com/snagit.html) and tutorials (using Camtasia; www.techsmith.com/camtasia.html or Jing; www.techsmith.com/jing.html).

Canned demonstrations are best for serving as simple directional guides, for demonstrating appropriate steps in a standardized and repeatable process, and serving as reminders and clarifications of multistep processes. While

these videos are helpful aids for viewing multistep practices, they are limited by their static nature when demonstrating various options within complex iterative pathways.

LIVE SESSIONS

When dealing with variable-option processes and decision-tree routines, it is far more useful to demonstrate the interactive aspects of addressing the complexities within a live session, using the actual iterative search process. Until recently, phone calls have often served as the best solution for addressing complex scenarios. Phone conversations allow for easier personal interactions when considering complex options.

However, even phone conversations can become quite confusing without supporting visual elements. How often do we hear, "What are you looking at on your screen right now?" Sharing screen results, with or without associated voice interaction, would help in many scenarios. Verbal interactions as supplements to visual assistance would create even more effective and efficient consultations.

Early attempts to provide robust support environments included these communication options, but in some cases, the product was released before the technology was stable and freely available. One early example was the OCLC QuestionPoint collaborative reference service tool (www.oclc.org/us/en/questionpoint/default.htm). In its early rollout, it experienced significant connectivity and reliability issues, particularly with third-party tools and closed or simultaneous window hopping. Today it is still limited to chat and email, but many libraries find it useful. The fee and the expectation of providing remote support to other institutions, which often requires local knowledge, keeps some libraries from adopting the tool.

CROSS-PLATFORM OPTIONS

We now have free reliable cross-platform options that provide the types of tools that can enhance remote reference services using interactive media. Simulāt, Inc.'s Vyew (www.vyew.com) and other collaboration software, such as Google+ Hangouts, offer synchronous communication and more advanced manipulation options. Integrated tool features include shared workspaces with smart board capabilities, live screen-passing between participants, and multiple methods of real-time communication—such as webcam, chat, and VoIP sidebars. I've created a video showing how the library can use Vyew (http://screencast.com/t/eoMBavei).

Due to security concerns, most do not yet offer remote desktop control, but even that level of assistance and collaboration is possible using free software. While it increases collaboration and interaction at a distance, Vyew does not offer remote desktop control, only the viewing of active screens in real time. Remote control is the next step in offering advanced instruction, assistance, and collaboration.

These tools provide the ability to view and demonstrate complex processes using active sidebar conversations to discuss where the searcher is and what is happening, and then lead a distant user to the appropriate next steps. There is no substitute for engaging in actual research processes through such guided real-time assistance and teamwork.

Exploring the iterative process together at the point of need is essential when addressing complex and multibranching operations. Guides can keep users on track with their initial research investigation, not allowing them to be diverted or distracted by the many enticing branches that occur in a typical modern navigational interface. The temptation to explore full-text documents during initial searching often results in being timed out. An experienced guide can point out such obvious hazards and offer methods to remain focused and productive in this new environment.

RECORDING INTERACTIONS

A byproduct of this guided assistance is the ability to record the interactions and send the results as follow-up transcripts for later reminders, assuming the researcher provides an email address. These recordings may also serve others as precreated FAQ learning tools.

One thing to remember about these recordings and initial shared viewing options: They are not available to all users. When you consider such added-value assistance, remember that not all potential users have high bandwidth viewing capability—or any viewing capability. These visual approaches should be supplemented with other methods more appropriate for those using chat, basic phone, or limited bandwidth data plans. Entirely different approaches to providing remote assistance must be developed for those with visual disabilities. In these cases, while media-based remote assistance may not be appropriate, we must still provide sophisticated remote subject expertise using other methods.

VALUE-ADDED FUNCTIONALITY

The types of value-added functionality and when these features might be most helpful in enhancing virtual/remote interactions might include the following:

- Sharing in the actual discovery process and participating in making the appropriate selections from among the multiple options that are presented in sophisticated interfaces (database selections, thesauri, field searching, combined author/keyword, format limiters, etc.)
- Discussions about critical thinking reactions to real-time results (working with dynamic faceted result clusters, exploring author name authority results, limiting with subject headings, limiting to specific time periods, sorting result sets, refining searches using the search history screen, and explaining the various options within the standard resolver screen that might include full text from multiple sources, ILL services, citation tracking, and find similar searches)
- Jointly manipulating search results to navigate further among the post-discovery activities (citation capture and management, auto-alert creation, multimedia materials capture, annotation and highlighting, discovery and manipulation of datasets, mining and repurposing within collections, and sharing across communities)

WATCH, LISTEN, AND LEARN

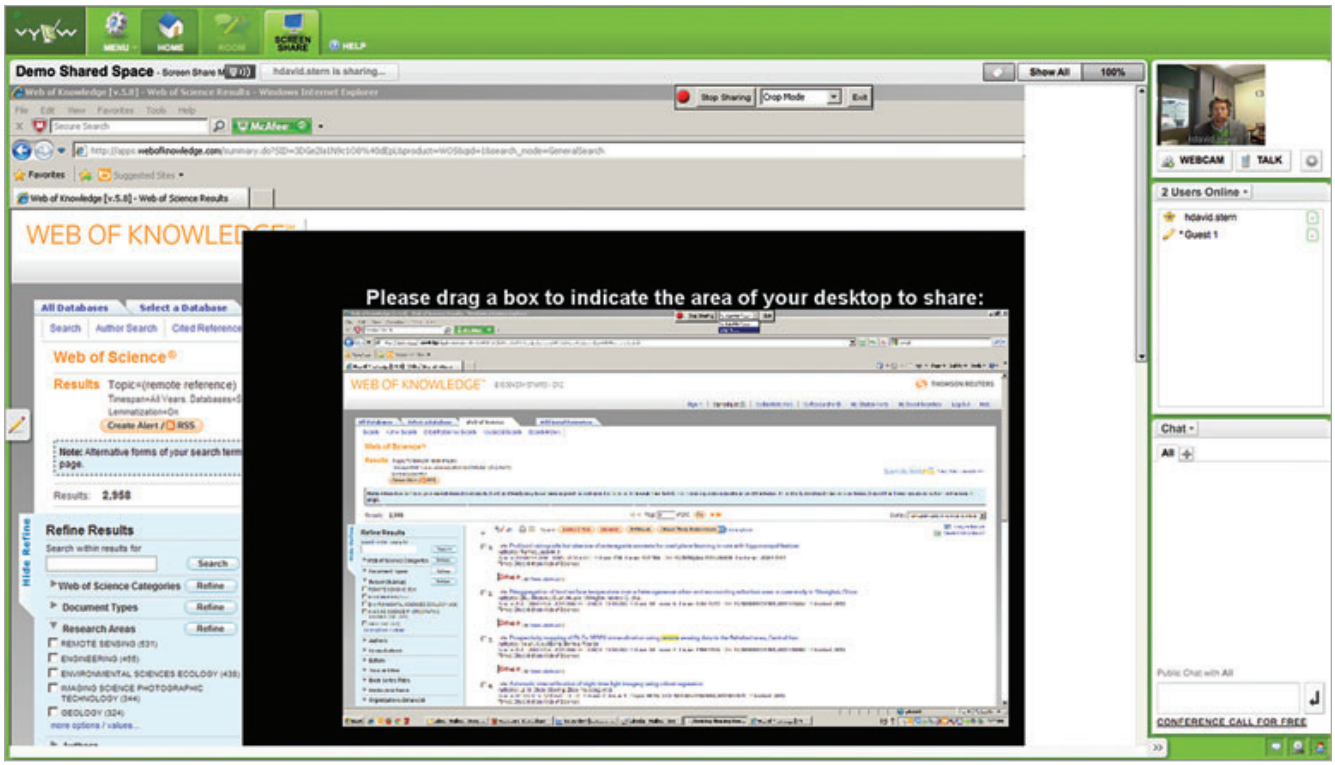
Within the search process, visual assistance for remote interactions could be important in describing both specific actions and the larger search process itself. Explaining specific actions such as finding a full-text document could be facilitated. How much easier would it be for a person to watch and discuss the screen when presented with the typical library resolver screen? These pop-up windows often contain many elements, and they are confusing to first-time viewers.

Often the matches contain options for the same article from multiple hosts and versions in multiple formats, such as PDF and HTML. Some resolver services offer advanced ILL and supplementary author searching in other databases. This moment is a great opportunity for librarians to describe the differences between these options and basic Google search results.

Explaining the search process, especially when searching multiple sources simultaneously using a federated or discovery search tool, would be much easier if you could point to parts of the screen and watch as various options are explored. Imagine running side-by-side searches of multiple tools to show the different types of results in terms of raw numbers, types of materials, currency of materials, the utility of controlled vocabularies for limiting results, and the comparison of full-text items between aggregators and subject indexes with resolver links.

Librarians could show further discovery options from federated searches that surface unusual materials and alternative media types not found in many of the most common in-depth subject databases. In addition, given the many different branded database platforms in use, the visual aspect would make it much easier to locate often hidden or renamed resolver links—including how to embed a resolver function into Google searching.

When discussing and demonstrating the difference between Google searches and library database searches, it is much easier to demonstrate that higher numbers of results from Google searches are not always a good thing. Side-by-side comparisons are a good way to show that library databases display interesting and credentialed results. Plus, they offer additional precision, filtering, and navigation tools that can make searching more productive and satisfying.



Setting up a shared screen so the librarian can help with a World of Knowledge search, using the Vyew software

VISUALIZING ADVANCED SEARCH

Clearly, since visual assistance is helpful when explaining the complexities of initial search screens, then visual guidance is even more beneficial in describing the many options that exist within advanced search processes. Librarians can describe the power and appropriateness of any ensuing iterations made through secondary selections and further limitations to initial searches.

Search has expanded beyond the traditional searching of text. Imagine how necessary visual aspects are when performing sophisticated searching of nontext materials such as images and datasets. To provide quality assistance in discovering images, it is optimal to see the search results. Maximizing and manipulating sophisticated image databases requires an understanding of their interface properties, particularly when it comes to clustering and tagging images. Searching for datasets, and being able to perform follow-up manipulation of the downloaded data, often requires sophisticated interfaces that use graphic representations. These are very difficult to describe using email or chat alone.

Demographic tools such as Worldmapper (www.worldmapper.org) have result visualization options better explained by seeing rather than telling. The manipulation of geospatial information using spreadsheets and visually intensive tools such as SimplyMap (http://geographicresearch.com/simplymap) and the ESRI ArcView suite of tools (www.esri.com) involve very steep learning curves that may still require the push of precreated demos and tutorials.

The complex discovery and downloading plus processing issues associated with the use of social science data from tools such as the ICPSR (www.icpsr.umich.edu/icpsrweb/landing.jsp) and the search, retrieval, and manipulation of polling data from sources such as the iPoll and Roper tools (www.ropercenter.uconn.edu/data_access/ipoll/ipoll.html), which contain a mixture of both raw data and processed materials, will also require interactive and guided assistance.

EXPLAINING SCHOLARLY RESEARCH

Another important feature of a blended text, voice, and visual interaction is the ability to place the search tools within the context of associated scholarly network portals. Information tools should not stand in isolation; they should be woven seamlessly into the normal scholarly suite of tools used by a researcher. Demonstrating where these search tools exist within the normal environment of scholars so that they can embed them in their normal tool sets will make it more likely that these advanced tools will be used.

Not only should librarians help researchers find and place these traditional library tools within their gateways, but also librarians should demonstrate the advantages of integrating other important subject-specific information tools, such as the most important taxonomies, visualization tools, news sources, and eprint servers that exist for a specific discipline.

Scholars use the advanced features within search tools to synthesize research; refine results; target by factors

such as years, treatments, or perspectives; and filter for the most persuasive support materials for particular positions. The ability to guide someone through these expanded possibilities in real time, with side-by-side visual and conversational interaction, creates much more impressive experiences. Researchers absorb the experience and understand the potential benefits far more easily through actual self-referential and meaningful investigations. The dynamic of the more complete interaction also allows the librarian to emphasize some of the underlying concerns and considerations about accuracy and bias in a real-time exploration scenario without being too theoretical or artificially obtrusive.

POST-DISCOVERY KNOWLEDGE MANAGEMENT

Finally, the ability to demonstrate and lead a distance learner through the complexities of post-discovery knowledge management processing will make the sometimes-dizzying opportunities for handling various types of materials more intuitive, whether it's for individual or group work. In terms of citation management, librarians can demonstrate the transfer of citation sets between actual tools using the various options that might include at one extreme the simple seamless transfer of marked records through the most complex scenarios, which require multi-step downloading and importing, and perhaps even conversion steps.

After the importing, it is then possible to show the steps involved to embed references as footnotes or citations into word processor documents. This operation is certainly something much easier to grasp if you are watching and performing the task in real time. The ability to demonstrate, and then watch, the successful completion of a process by a user, or to offer real-time assistance across a network, makes the interactions far more powerful and reasonable for explaining such complex tasks.

INDIVIDUALS AND GROUPS

For individuals, it is possible to move from simple citation managers to tools that can handle other types of media and can provide other types of operations. For instance, librarians could help individuals incorporate the Zotero (www.zotero.org) software to store and handle extended media types discovered on the web or demonstrate the Diigo (www.diigo.com) possibilities to capture, OCR, annotate, highlight, and share web materials in additional ways. It would be almost impossible to describe Diigo's intricacies of using an individual item record to review other followers, their interests, and their other related groups. Imagine attempting to describe via text how to coordinate group projects that involve multiple pivot points and interest groups. In these cases, only demonstrations will be effective teaching tools.

When working on larger group projects, the complexities of supporting the group mashing of materials and the loading of archival materials into an institutional repository or enterprise system such as SharePoint would require visual assistance along with sidebar real-time communication. Quite often, large corporate/enterprise solutions for internal knowledge and competitive advantage will involve remote support from a central service point, and training and help will be provided at a distance.

VYEW VERSUS GOOGLE+ HANGOUT

The Vyew free software is representative of collaborative, shared workspace tools that librarians can use to assist in virtual reference. How does it compare to another popular tool, Google+ Hangout?

While both tools allow for shared workspace and screen sharing, Hangouts allow individuals to work in their own private spaces in addition to within the shared workspace. A user can work with Google documents in many ways and embed them into shared areas. This may be important for longer term projects that require the merging of many different group projects. Both tools provide some form of free support, but there are real and hidden costs involved for larger implementations. Hangouts require that all participants have Google accounts, which are free but require prior registration. Vyew offers a free account that offers four free user seats—there is a subscription fee for additional seats. The beauty of the Vyew approach is that no user accounts are required; simply push a URL via chat or email to start a session.

The initial Vyew session already includes the basic options for shared workspaces, smart board tools, sidebars, and easy navigation. The basic and more advanced operations available in Hangouts requires selecting and configuring apps.

Given the variety of options that allow for collaborative work across many types of materials and media, with as-close-as-possible face-to-face interactions and iterative visual processing, across many platforms and browsers, we are now much closer to providing true integration of remote reference and instruction into real-world work environments for more meaningful and immediate support.

Vyew allows reference interactions to go from basic (and barely adequate) chat capabilities to enhanced shared workspaces and shared real-time screen sharing. Other tools provide similar options. To select the best tool, consider the ease of communication, the cost of communication, the capabilities of the software (either as built-in or with add-ons), the learning curve in terms of staff training, and the level of technical support and promotion required for smooth integration into the existing networks. Whatever you choose, shared workspace collaboration tools that enhance interaction options will help alleviate the frustrations of librarians and researchers alike.

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